UNITED STATES DISTRICT COURT

DISTRICT OF MINNESOTA

JODI A. SCHWENDIMANN,

Plaintiff,

v.

ARKWRIGHT ADVANCED COATING, INC.,

Defendant.

Civil No. 11-820 (JRT/JSM)

MEMORANDUM OPINION AND ORDER ON MOTIONS FOR SUMMARY JUDGMENT

ARKWRIGHT ADVANCED COATING, INC.,

Counter Claimant,

v.

JODI A. SCHWENDIMANN, and COOLER CONCEPTS, INC.,

Counter Defendants.

Devan V. Padmanabhan, David A. Davenport, and Justice Ericson Lindell, **WINTHROP & WEINSTINE, PA**, 225 South Sixth Street, Suite 3500, Minneapolis, MN 55402, for Jodi A. Schwendimann and Cooler Concepts, Inc.

Kurt J. Niederluecke and Laura L. Myers, **FREDRIKSON & BYRON, PA**, 200 South Sixth Street, Suite 4000, Minneapolis, MN 55402, for Arkwright Advanced Coating, Inc.

Plaintiff Jodi A. Schwendimann brought this patent infringement action against Defendant Arkwright Advanced Coating, Inc., ("AACI"), and AACI counterclaimed for patent infringement against Schwendimann and one of her businesses, Cooler Concepts,

Inc., ("Cooler Concepts"). Both parties' patents involve image-transfer sheets, and both parties now move for partial summary judgment.

The Court will grant in part and deny in part each party's motion. Because the expert evidence presented establishes that Schwendimann's product meets the only disputed claim limitation for AACI's U.S. Patent No. 6,667,093 (" '093 patent"), the Court will grant AACI's motion and deny Schwendimann's motion with regard to Schwendimann's infringement of that claim. However, the Court finds that competing expert testimony establishes a fact issue over whether Schwendimann's product meets the disputed claim limitation for AACI's U.S. Patent No. 7,943,214 (" '214 patent") and will deny AACI's motion with regard to infringement of that claim. The Court will also deny AACI's motion with regard to Schwendimann's affirmative defenses because AACI failed to meet its burden as the moving party and the issues are not sufficiently presented to the Court.

The Court will grant Schwendimann's motion with regard to AACI's anticipation defense to infringement of Schwendimann's patents because the earlier patents presented either do not contain all of the elements present in Schwendimann's patents or do not suggest combining those elements. However, the Court will deny Schwendimann's motion with regard to AACI's obviousness defense because questions of fact remain over whether it would have been obvious to a person skilled in the art to combine the elements found in several prior patents in the manner claimed by Schwendimann. The Court will also deny AACI's motion with regard to its infringement of Schwendimann's patents because competing expert testimony establishes a question of material fact, and with

regard to willfulness because Schwendimann has presented some evidence of subjective intent and questions of material fact remain. Finally, because the Court finds factual issues remain over whether Schwendimann is entitled to lost profit damages based on her businesses, NuCoat, Inc., ("NuCoat") and Cooler Concepts, the Court will deny both parties' motions on that issue.

BACKGROUND

I. THE PATENTS

All of the patents at issue involve image-transfer sheets that can be used, for example, to transfer images onto a dark-colored T-shirt by applying heat. The following portions of AACI's and Schwendimann's patents are relevant to the present motions for partial summary judgment.

AACI's '093 patent claims an image-transfer sheet including, in pertinent part, "a hot-melt second layer comprising a thermoplastic polymer having a melting point in the range of 60˚ to 180˚ C." (Decl. of Justice Ericson Lindell ("Lindell Decl."), Ex. D at 199, Mar. 11, 2016, Docket No. 397.)

The relevant portion of AACI's '214 patent is found in Claim 18, which contemplates "a white background layer being applied on the adhesive layer consisting of elastic plastics which are non-fusible at temperatures up to 220 degrees Celsius and which are filled with white inorganic pigments." (Decl. of Kurt J. Niederluecke ("Niederluecke Decl."), Ex. H, Ex. 3 at 14-15, Mar. 11, 2016, Docket No. 394.)

Schwendimann's patents "describ[e] a method or article for transferring printed images onto dark colored cloth or other material using heat." (Mem. Op. & Order ("Claim Construction Order") at 2, Dec. 2, 2015, Docket No. 354.) All of Schwendimann's patent claims include a "white layer" limitation, which the Court construed as "a layer comprising a concentration or configuration of pigment providing a white background for received indicia and which further comprises a polymer that melts and mixes with another layer or layers during application." (*Id.* at 17.)

II. THE PRODUCTS

Schwendimann operates two businesses, NuCoat and Cooler Concepts, which "manufactur[e] and sell[] specialty paper products, including inkjet image transfer paper or sheets." (Am. Compl. ¶¶ 2-3, May 21, 2015, Docket No. 264.) Schwendimann's accused products, the "PermaTrans Dark" products, are "comprised of a silicone-coated based paper, onto which an ethylene acrylic acid (EAA) resin layer is applied, followed by an opaque layer comprising titanium dioxide and polyurethanes, on top of which is applied an inkjet layer including polyurethane and organic polymeric particles." (Niederluecke Decl., Ex. H ¶¶ 10, 22.)

AACI is also "engaged in the business of producing coating film and paper, including photo papers, self-adhesive papers, inkjet films, and inkjet image transfer papers or sheets." (Am. Compl. ¶¶ 4-8, 29.) AACI's accused products are referred to as the 888 and 889 products. (*See, e.g.*, Niederluecke Decl., Ex. E ¶¶ 32-37.) The AACI 888 product has three layers, (1) "a silicone-coated base paper," which is removed prior

to application, (2) "an Eclipse Hot Melt (FL-4387) polymer layer," which includes EAA and "melts and binds to the T-shirt," and (3) "a Solvent T-Shirt Inkjet Coating Layer (FL-5158)." *(Id.* ¶¶ 32-33.) The AACI 889 product has four total layers: it has the same silicone-coated base paper and Eclipse Hot Melt polymer layer (with EAA) as the AACI 888 product, but rather than a single top layer, the AACI 889 product has two layers – the "Eclipse White Layer D (FL-3158) . . . and an Eclipse Inkjet Topcoat (FL-5085)." (*Id.* ¶ 35.) The additional layer "provid[es] a white background for an image." (*Id.*)

The parties dispute, and provide expert report evidence regarding, the following aspects of the accused products.

A. Second Layer Melting Point For Schwendimann's Products

AACI's expert, Chris Macosko conducted tests to determine the melting point of the Schwendimann products in light of the '093 patent's requirement of "a hot-melt second layer comprising a thermoplastic polymer having a melting point in the range of 60˚ to 180˚ C." (Lindell Decl., Ex. C ¶¶ 2-3, Ex. D at 199.) Macosko conducted "Differential Scanning Calorimetry" ("DSC") testing on Schwendimann's products. (*See* Niederluecke Decl., Ex. E ¶ 19 & Ex. 5; *id.*, Ex. H ¶¶ 14-15 & Ex. 5.) DSC "is a fundamental tool in thermal analysis," (*id.*, Ex. J at 2), and "a standard tool for measuring the melting and freezing points of polymers and other solids," (*id.*, Ex. K at 2).[1]

[1] The principles behind DSC are further explained as follows:

> One way to describe how a DSC works is to think about what happens when you heat a solid with a constant heat input. Initially, the solid polymer is heated from

(Footnote continued on next page.)

According to Macosko, "the first heat cycle is the right one to use" to determine the melting point of the EAA second layer in Schwendimann's products. (*Id.*, Ex. M at 168:6-9.) Macosko interprets these results as showing "a transition with a peak at about 50 degrees centigrade, and then . . . another broader transition peak at around 80 degrees centigrade, which may be composed of two, so there could be as many as three melting transitions or one narrower and one broader melting transition." (*Id.*, Ex. M at 155:17-22.) He further noted that EAA "polymers can have several melting transitions" because "they're co-polymers," and that in this case "there are several melting points for EAA, . . . there are melting points at . . . approximately 50 and 80." (*Id.* at 156:8-157:1.) In determining that this range – 50 degrees Celsius to around 80 degrees Celsius – was the EAA polymer rather than something else, Macosko relied on his expertise and the process of elimination, stating, "I know what EAA should melt at, . . . I know what the ink-receiving layer should melt at, knowing the components, and I observed both of those, and I don't observe anything else." (*Id.* at 161:6-18.)

(Footnote continued.)

> room temperature to its melting point. As it melts from a solid to a molten liquid, the temperature is constant. After the phase change is complete, the temperature starts to rise again . . . . Instead of having a constant heat input, the DSC is based on the temperature increasing at a constant rising rate. This means more or less heat energy is put into the sample to make the temperature increase at a constant rate. **When a phase change occurs, much higher than normal levels of heat are needed. The point of the maximum heat input is called the melting point.**

(Niederluecke Decl., Ex. K at 2 (emphasis added).)

Schwendimann's expert, Scott A. Williams, states that Macosko's analysis on this issue is unreliable, in part, because Macosko did not use any controls and "the thermal behaviors of polymers may well change when they are combined with other polymers or additives." (*Id.*, Ex. L at 14-17.) Williams, however, did not personally conduct any tests to determine the melting point of the EAA in Schwendimann's products. (*Id.*, Ex. I at 38:20-39:6.)

B. White Layer Melting Point For Schwendimann's Products

For the '214 patent, each party's expert opines on whether the "white background layer" in Schwendimann's products is "non-fusible at temperatures up to 220 degrees Celsius." (*Id.*, Ex. H, Ex. 3 at 15.) Macosko asserted that Schwendimann's products satisfied this element because DSC tests did not show any unaccounted for melting point prior to 220 degrees Celsius, and thus, Macosko opined that the white layer could not have a melting point below 220 degrees Celsius. (*Id.*, Ex. M at 161:6-18.) Macosko also relied on scanning electron microscopy ("SEM") images of Schwendimann's products before and after application. (*Id.*, Ex. H ¶ 16 & Ex. 6.) Macosko contends that the images also suggest that the white layer does not fuse, mix, or melt into the other layers or the T-shirt. (*Id.*, Ex. M at 176:1-182:7.)

Williams disagrees with Macosko's conclusions and states that, based on his testing, the white layer of Schwendimann's accused product melts before 220 degrees Celsius. (*Id.*, Ex. L at 17-21.) During testing, Williams applied Schwendimann's image-transfer sheets by iron heated to less than 220 degrees Celsius and observed, using a

microscope, "that black fibers from the t-shirt upon which the samples were applied [were] visibly protruding through the samples." (*Id.* at 18.) Williams concludes visible protrusion "could not occur without melting of the white layer polymers." (*Id.*) Williams also questions Macosko's interpretation of the SEM images. (*See id.* at 20-21.)

C. Mixing or Melting of Aaci's Products

Williams conducted a series of tests to determine the melting and mixing of AACI's 888 and 889 products after applying them using a hand iron with various amounts of heat, lengths of time, and amounts of pressure. (Decl. of Justice Ericson Lindell ("Second Lindell Decl."), Ex. A at 19-35, Apr. 8, 2016, Docket No. 417.) In one test, Williams examined the transfer with a microscope to determine whether T-shirt fibers mixed and rose to the surface. (*Id.* at 22-23.) Williams stated that, if the fibers mixed and rose to the surface, the white layer melted and mixed as required under the Court's construction of the Schwendimann patent. (*Id.*) Williams found that even applying the iron for less time and using less heat than suggested in AACI's instructions, the T-shirt fibers rose to the top, which Williams interpreted to mean that all layers of the image-transfer sheet melted. (*Id.* at 34-35.)

Williams also tested the transfer characteristics of AACI's 888 and 889 products by stretching the applied products by hand to determine their adhesion. (*Id.* at 35-49.) Williams found that the "products were able to be stretched by hand without releasing from the T-shirt and without the layers releasing from each other." (*Id.* at 38.) Williams concluded "[t]his adhesion shows that the hot melt layer melted and mixed with the T-

shirt fibers . . . [and] that the polymers of all layers of the 888 and 889 products melted and mixed with those of adjacent layers." (*Id.* at 39.) Williams came to the same conclusion after looking at cross-sectional views of the product after application, finding that "the layers [were] no longer distinctly uniform and separate as some portions of the layers flow and mix into or among portions of adjacent layers." (*Id.* at 43-44.)

Finally, Williams performed a test with fluorescent ink, finding the ink invisible on one side prior to ironing, but visible after, suggesting "there ha[d] been a change in the layer structure," and that "the polymer layers melted and mixed to the extent that portions of the fluorescent marking on the polymer layer closest to the T-shirt moved closer to the uppermost surface." (*Id.* at 46-48.)

Based on these tests, Williams stated "that the polymers of the coatings (for 889 the ink-receptive layer, white layer, and hot melt layer, and for 888 the ink-receptive layers and hot melt layer) are thermoplastic polymers that melt and mix with adjacent layers during application at normal hand iron temperatures, times and pressures." (*Id.* at 48.)

AACI argues that Williams' opinions are irrelevant because Williams failed to follow AACI's instructions. Williams admitted to relying on multiple sets of instructions while running his tests. (*Id.*, Ex. B at 43:1-3, 47:5-8.) But, Williams stated that the tests were "guided by" the instructions and that he "follow[ed] the actual instructions" except for "the size/time parameter . . . [b]ecause those are guidelines under the instruction sheet." (*Id.* at 49:23-50:15, 57:17-58:21, 60:19-22.) Williams "relied on the instructions that came with each of the products, and [his] experience" to craft his testing procedures.

(*Id.* at 188:16-23). Williams also opined that a consumer would get the same results, and that even when as part of the progression less heat, time, and pressure were applied than the instructions suggested, melting continued to occur. (*Id.* at 146:3-22.) Williams also disputed that the tests showed "degrading" of the samples, stating that in some settings, the mixing of the fibers with transfer sheet would be positive because it would provide "more of a long-term product life." (*Id.* at 143:17-144:14.)

Macosko also performed tests on the AACI products to rebut Williams' conclusions. (Niederluecke Decl., Ex. E.) Macosko performed DSC tests on the 888 and 889 products and found melting points consistent with the EAA and Orgasol (part of the ink-receiving layer), but no melting point for the white layer. (*Id.* ¶¶ 19-20, 44-46 & Ex. 5.) Macosko examined samples using microscopy. (*Id.* ¶¶ 27-28.) According to Macosko, none of the images suggested mixing or melting, but rather, the images indicated a clear demarcation between the layers, including the white layer. (*Id.* ¶¶ 48-57.)

III. PROCEDURAL HISTORY

Schwendimann initially brought this action on April 1, 2011, alleging that AACI infringed several of Schwendimann's patents. (Compl., Apr. 1, 2011, Docket No. 1.) AACI responded by bringing counterclaims, alleging that Schwendimann infringed several of AACI's patents. (*See* Answer & Countercl., Apr. 11, 2011, Docket No. 5.) The Court issued a claim construction order on December 2, 2015, construing claim terms from both parties' patents. (*See* Claim Construction Order at 8-43.)

Both Schwendimann and AACI now move for partial summary judgment. (Mot. for Partial Summ. J., Mar. 11, 2016, Docket No. 381; Mot for Partial Summ. J., Mar. 11, 2016, Docket No. 384.) Both parties seek summary judgment over whether Schwendimann infringed AACI's '093 patent, AACI seeks summary judgment that Schwendimann infringed its '214 patent, and AACI seeks summary judgment on Schwendimann's affirmative defenses. With regard to Schwendimann's patents, AACI seeks summary judgment on non-infringement, and Schwendimann seeks summary judgment on AACI's invalidity defenses based on anticipation and obviousness. Finally, both parties seek summary judgment with regard to Schwendimann's ability to seek damages based on NuCoat's and Cooler Concepts' lost profits. Due to the overlapping issues presented by the two motions, the Court will consider the parties' arguments by issue rather than by motion.

ANALYSIS

I. STANDARD OF REVIEW

Summary judgment is appropriate where there "is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). A fact is material if it "might affect the outcome of the suit," and a dispute is genuine "if the evidence is such that a reasonable jury could return a verdict for" either party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A court considering a motion for summary judgment must view the facts in the light most favorable to the non-moving party and give that party the benefit of all reasonable inferences to be drawn from

those facts. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587-88 (1986). Summary judgment is appropriate if the nonmoving party "fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986).

II. AACI'S PATENTS

A. '093 Patent

Both parties seek summary judgment on Schwendimann's infringement of the '093 patent.[2] The only disputed issue for the '093 patent is whether Schwendimann's accused product meets the claim limitation: "a hot-melt second layer comprising a thermoplastic polymer having a melting point in the range of 60˚ to 180˚ C." (Lindell Decl., Ex. D at 199.)

Macosko's tests, as described above, suggest that Schwendimann's accused product has at least two melting points – at 50 degrees Celsius and around 80 degrees Celsius. Therefore, the parties primarily dispute the correct interpretation of the claim limitation: AACI argues that a product meets the limitation if at least one melting point of the EAA polymer falls within the range, and Schwendimann contends that the entire

[2] AACI notes that it is only seeking summary judgment on Claims 1 and 11 of the '093 patent, but states that if the Court were to rule in its favor, it would voluntarily dismiss the additional 12 claims asserted under that patent. (AACI's Mem. in Supp. of Mot. for Partial Summ. J. at 10 n.3, Mar. 11, 2016, Docket No. 386.)

range of melting points found in the EAA layer must fall within the claimed range of 60 degrees Celsius to 180 degrees Celsius.

Schwendimann relies on *Elekta Instrument S.A. v. O.U.R. Scientific International, Inc.*, to argue that AACI's reading of the claim language would render the range meaningless because a product could satisfy the limitation even if it fell outside of the range. 214 F.3d 1302, 1306-07 (Fed. Cir. 2000). In *Elekta Instrument*, the Federal Circuit reversed the district court's more expansive reading of the claim language, limiting the claim language to "**only** within a zone **extending between** latitudes 30˚-45˚" as the range stated. *Id.* at 1307. The Federal Circuit reasoned "the terms 'only' and 'extending between' unambiguously limit[ed the] claim . . . to gamma units . . . located in a zone stretching exclusively in the space separating the latitudes 30˚ and 45˚." *Id.*

However, the claim language in the '093 patent is broader than that in *Elekta Instrument*. In fact, the claim language does not say the "layer" must have a melting point of 60 degrees Celsius to 180 degrees Celsius, as Schwendimann contends. Rather, the claim language states the layer must be comprised of "a thermoplastic polymer having a melting point" within the range. Thus, the plain language of the '093 patent suggests only that there must be a thermoplastic polymer with a melting point within the range, and not that the entire layer must melt within the range. The use of the transitional word "comprising" strengthens the broader interpretation of the '093 patent because the word allows for other additional elements. *See, e.g., Solvay S.A. v. Honeywell Int'l Inc.*, 742 F.3d 998, 1005 (Fed. Cir. 2014) ("The well-established meaning of 'comprising in a

method claim indicates that the claim is open-ended and allows for additional steps.'" (quoting *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1368 (Fed. Cir. 2003))).

Schwendimann also contends that the Court should not adopt AACI's interpretation because AACI disclaimed the interpretation during patent prosecution. The U.S. Patent and Trademark Office denied AACI's initial patent application as anticipated by U.S. Patent No. 6,177,187 ("Niemoller '187 patent"), a patent which will be discussed further in a later section. (*See* Second Lindell Decl., Ex. C at 5-9.) AACI amended the claims in response to the rejection by adding the "hot-melt" language at issue here. (*Id.* at 12-15.) The '093 patent history, however, does not necessarily conflict with AACI's current interpretation. The addition distinguished the Niemoller '187 patent because the pertinent portion of the Niemoller '187 patent involved "essentially self-adhesive badges or labels," which could be attached at room temperature. (*Id*.) In contrast, AACI's claims involved a "hot-melt layer . . . to help bind a printed image to the fabric as the image is heat-transferred to the fabric." (*Id.* at 14.) Thus, AACI amended its claims to distinguish a contact adhesive with no melting point above 60 degrees Celsius, by requiring a melting point between 60 degrees Celsius and 180 degrees Celsius. Avoiding the Niemoller '187 patent would not require that all melting points occur within the specified range and the prosecution history does not suggest AACI disclaimed more than necessary to avoid this prior art.

Finally, Schwendimann argues that even if the Court adopts AACI's interpretation of the claim limitation, the Court should not grant AACI summary judgment because Williams' criticism of Macosko's analysis establishes a genuine issue of material fact

over the applicable melting points. Williams criticizes Macosko's failure to run a control and opines that some polymers behave differently when combined. (Niederluecke Decl., Ex. L at 15.) Williams also challenges Macosko's analysis because one component of the accused products had a known "softening point" of 185 degrees Celsius, which did not show up in Macosko's tests. (*Id.* at 15-17.) Williams did not, however, perform any tests to determine the melting point.

Overall, the Court finds that, based on the plain language of the '093 patent's claim limitation, the fact that the layer has components with melting points both outside and inside the range does not foreclose infringement, and the prosecution history does not suggest AACI disclaimed such an interpretation. Additionally, Williams did not provide a contrary analysis or suggest the absence of a melting point within the range. The Court finds that Williams' criticism of Macosko's methods is insufficient to establish a question of material fact over whether Schwendimann's product meets the only disputed claim limitation for infringement of the '093 patent, and the Court will grant AACI's motion for infringement on the '093 patent.

B. '214 Patent

AACI seeks summary judgment on Schwendimann's infringement of the '214 patent. The only dispute with regard to the '214 patent is whether Schwendimann's accused product fits the claim language requiring: "a white background layer . . . consisting of elastic plastics which are non-fusible at temperatures up to 220 degrees Celsius and which are filled with white inorganic pigments." (*Id.*, Ex. H, Ex. 3 at

15.) The parties dispute whether the white layer in Schwendimann's accused product is non-fusible at temperatures up to 220 degrees Celsius.

AACI relies on Macosko's expert report, in which Macosko found that the white layer in Schwendimann's accused product did not reach a melting point or liquefy in temperatures up to 220 degrees Celsius. Macosko considered DSC results, which showed three melting points accounted for by other polymers and not the white layer. (*See id.*, Ex. M at 161:6-18; *id.*, Ex. H, Ex. 5.) Macosko also relied on SEM images before and after application, which Macosko opines show that the white layer does not fuse, become homogenous, or interdispersed with the other layers. (*Id.*, Ex. H, Ex. 6.)

Schwendimann argues that a factual dispute remains over whether Schwendimann's accused product satisfies the 220 degrees Celsius limitation. Schwendimann relies on Williams' criticism of Macosko's analysis, and Williams' tests, in which Williams found that the white layer melted prior to 220 degrees Celsius. (*Id.*, Ex. L at 17-21.) Williams bases his opinions on experiments conducted with heat less than 220 degrees Celsius. (*Id.*) In the experiments, Williams observed black fibers from the T-shirt protruding through the samples, a result Williams states "could not occur without melting of the white layer polymers." (*Id.* at 18.) Williams also opines that Macosko's attribution of the melting point at 150 degrees Celsius to Orgasol (part of the ink-receiving layer) is pure speculation because Macosko failed to isolate or use controls to support the conclusion. (*Id.* at 20.)

AACI disputes Williams' opinion regarding the non-fusible limitation, arguing that Williams applied the wrong standard because Williams used the Court's claim

construction of similar language in the Schwendimann patent. AACI argues the same definition would not necessarily apply to the AACI patent – which the Court did not construe – because the Court based the definition on the prosecution history of Schwendimann's patent rather than the ordinary definition of the term. However, Williams' definition of "melt" or "mix" included the concepts of liquefying and interdispersing, which are contemplated by the term "fusible." (*Id.* at 8-10; Second Lindell Decl., Ex. B at 123:25-125:12, 128:20-130:1, 132:10-133:11.) AACI also notes that Schwendimann has not performed any thermal analysis, suggesting the white layer melts before 220 degrees Celsius. (Niederluecke Decl., Ex. I at 38:20-39:6.) Additionally, AACI contends that Williams' experiments do not rebut Macosko's conclusions because, even if the shirt fibers protrude through the white layer, that does not necessarily mean the white layer melted.

Nonetheless, the Court finds a fact issue over whether the white layer is non-fusible under 220 degrees Celsius based on the competing expert testimony. Unlike the evidence presented regarding the '093 patent, Williams did more than criticize Macosko's methodology; Williams provided analysis and tests suggesting that the white layer melts prior to 220 degrees Celsius. While Macosko and AACI call into question Williams' methods, at this stage in the litigation, the Court finds a factual dispute remains over whether the white layer melts under 220 degrees Celsius based on the parties' expert analyses. Thus, the Court will deny AACI's motion with regard to the '214 patent.

C. Schwendimann's Affirmative Defenses

AACI next argues briefly that the Court should "clear away" some of Schwendimann's "unsupported defenses," including that AACI's patents are invalid and unenforceable and barred by unclean hands, laches, estoppel, and intervening rights. (AACI's Mem. in Supp. of Mot. for Partial Summ. J. at 21-22, Mar. 11, 2016, Docket No. 386; *see also* Schwendimann & Cooler Concepts Answer to Am. Countercls. at 6-7, June 29, 2015, Docket No. 269 (pleading affirmative defenses).) AACI contends that Schwendimann bears the burden of establishing the affirmative defenses because issued patents are entitled to a presumption of validity. *See Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 100-01 (2011) (discussing the presumption of validity). AACI also contends Schwendimann has not developed any support for the defenses.

While Schwendimann bears the burden of establishing affirmative defenses at trial, "the movant" bears the burden of "show[ing] there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law" on a motion for summary judgment. Fed. R. Civ. P. 56(a); *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986) (noting the party seeking summary judgment "always bears the initial responsibility of informing the district court of the basis for its motion and . . . demonstrat[ing] that the standard for the entry of summary judgment . . . is satisfied"). With respect to issues where the nonmoving party bears the burden of proof at trial, "[t]he burden on the moving party may be discharged [only] by 'showing' – that is, pointing out to the district court – that there is an absence of evidence to support the nonmoving party's case." *Id.* at 325.

The Court finds AACI failed to meet its burden and the Court will deny its motion with regard to Schwendimann's affirmative defenses. AACI's general challenge to all of Schwendimann's affirmative defenses, along with significant briefing on other issues, led to an undeveloped record. To the extent that Schwendimann waived certain arguments or defenses, such arguments can be addressed on a more fully developed record or when Schwendimann chooses to raise them. But the Court will not grant summary judgment on this sparse record.

III. SCHWENDIMANN'S PATENTS

A. Non-Infringement

AACI seeks summary judgment on the basis of non-infringement. AACI argues it did not infringe Schwendimann's patents because its products do not meet the limitation that the white layer melt and mix during application. The Court previously construed the "white layer" limitation as "a layer comprising a concentration or configuration of pigment providing a white background for received indicia and which further comprises a polymer that **melts and mixes with another layer or layers during application**." (Claim Construction Order at 17 (emphasis added).)

AACI and Schwendimann both provided expert reports taking contrary positions over whether AACI's products contain a white layer that melts during application. As discussed above, however, AACI contends that Williams' opinions do not establish a genuine factual dispute because Williams failed to follow the products' instructions and Macosko's tests reached contrary results.

Schwendimann disputes AACI's characterization of Williams' testing procedures. Schwendimann contends that there are several different sets of instructions for AACI's products, some from AACI's website and others provided by a third party seller. (Second Lindell Decl., Ex. D, 40:6-41:2, 53:13-18, 54:11-19, 58:10-59:19, 64:3-10; *id.*, Exs. E-H.) The instructions are not identical, and several do not set precise guidelines regarding the amount of heat and time of application. For example, one set of instructions given to customers suggested "[a]djust[ing the] heat setting and time as needed." (*Id.*, Ex. H.) Even instructions allegedly provided by AACI directed customers to "[t]ouch up portions of image by covering with overlay paper again and ironing over area(s)." (*Id.*, Ex. E at 23.) While Williams did not strictly follow any particular set of instructions, there is no indication that failing to strictly follow any particular set of instructions makes Williams' analysis unreliable, particularly considering the absence of a single set of instructions or guidelines for heat and timing of application. Williams relied on the instructions and his expertise when crafting his testing procedures, and he thoroughly explained his procedures.[3] (*Id.*, Ex. A at 19-49; *id.*, Ex. B at 43:1-3, 47:5-8, 49:23-50:15, 57:17-58:21, 60:9-22, 188:16-23.) Williams' tests involved varying levels of heat, time, and pressure, but in each experiment, Williams found what he construed as melting or mixing even

[3] Williams also provided reasons for several of the decisions that AACI challenged: for example, Williams states that he used the "linen" setting because linen is made from cotton, and therefore, "linen" is the highest cotton setting, (Second Lindell Decl., Ex. B at 67:20-68:25, 69:18-70:20), and he used two different irons because irons can behave differently, (*id.* at 77:17-78:18).

under less heat, time, and pressure than that described in the instructions. (*Id.*, Ex. A at 23-49.)

To the extent AACI challenges the factual basis for Williams' opinions, including the particular instructions followed, it can do so. *Bonner v. ISP Techs., Inc.*, 259 F.3d 924, 929 (8th Cir. 2001) ("As a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is up to the opposing party to examine the factual basis for the opinion in cross-examination.") But, on the evidence presented, the Court does not find Williams' analyses so unsupported as to render Macosko's opinions unrebutted. Thus, the Court finds a factual dispute remains over whether the white layer of AACI's products melts and mixes with another layer, based on the competing expert reports, and will deny summary judgment on this claim.

AACI also makes the same argument for a non-party product referred to as the "Neenah product" [4] and only discussed curtly in the briefing. AACI requests summary judgment that the Neenah product does not infringe for the same reasons as the AACI product because the patent claim Schwendimann asserts against the Neenah product also requires a "white layer" meeting the Court's definition.[5] However, Williams' opinion

[4] Referred to as "Neenah's Gold Seal Jet-Opaque II Dark Transfer Paper" product. (AACI's Mem. in Supp. of Mot. for Partial Summ. J. at 41.)

[5] AACI also argues briefly that the Neenah product does not fit another requirement of the asserted claim – that it have "an indicia-receptive layer including at least one surface configured to receive and carry transferable indicia." (Niederluecke Decl., Ex. O at 91.) However, AACI only points to a few of Macosko's images and states in a conclusory manner that they "show that the ink-receptive layer in the Neenah product does not carry ink on its surface." (AACI's Mem. in Supp. of Mot. for Partial Summ. J. at 41, 43.) In light of Williams'

(Footnote continued on next page.)

regarding the Neenah product establishes a fact issue over whether the product infringed. (Second Lindell Decl., Ex. A at 76-92 (Williams opining that the Neenah product infringed claim 17 of the '581 patent).) For the reasons discussed above, the Court does not find Williams' analysis so unsupported as to render it useless, and therefore, the Court will deny AACI's motion with regard to the Neenah product as well.

B. Willful Infringement

AACI also seeks summary judgment on Schwendimann's claims for willful infringement based on the same non-infringement argument just discussed and a priority defense for invalidity. Schwendimann argues that there are facts supporting willfulness, such as that AACI was aware of Schwendimann's lawsuit against Arkwright, Inc., when it purchased the company. (Second Lindell Decl., Ex. I at 9:20-11:24.) AACI argues this evidence fails to satisfy the standard set forth in *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007), requiring both an objective and subjective inquiry to establish willfulness. Namely, AACI argues Schwendimann does not satisfy the objective inquiry because AACI has viable non-infringement arguments and defenses. However, the Supreme Court recently rejected the bright-line *Seagate* test. *See Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1928 (2016). The Supreme Court held "'no precise rule or formula' for awarding damages under § 284," but that the Court must exercise its

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(Footnote continued.)

contrary opinion, (Second Lindell Decl., Ex. A at 91-92), AACI's general assertion is not enough to motion for summary judgment on this claim.

discretion to determine if it was an "egregious case[] of culpable behavior." *Id.* at 1932 (quoting *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014)). One of the principle concerns the Supreme Court expressed regarding the *Seagate* test was that it "requires a finding of objective recklessness in every case before district courts may award enhanced damages," which could "exclude[] from discretionary punishment many of the most culpable offenders." *Id.* Thus, the Supreme Court's decision in *Halo Electronics* forecloses AACI's argument that Schwendimann cannot support willfulness based on subjective evidence, without also establishing the objective prong. In light of *Halo Electronics* and the Court's rejection of AACI's non-infringement argument, as well as the somewhat limited facts presented, the Court will deny AACI's motion for summary judgment on Schwendimann's willfulness claim.

C. Anticipation

Schwendimann seeks summary judgment on AACI's invalidity defense based on anticipation. A patent is invalid, as anticipated if "a single prior art reference discloses each and every element of a claimed invention." *K-Tec, Inc. v. Vita-Mix Corp.*, 696 F.3d 1364, 1377 (Fed. Cir. 2012) (quoting *Silicon Graphics, Inc. v. ATI Techs., Inc.*, 607 F.3d 784, 796 (Fed. Cir. 2010)). Because patents are presumed valid, invalidity must be shown by clear and convincing evidence. *See id.*; *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319 (Fed. Cir. 2003) (citing 35 U.S.C. § 282). "[A]nticipation requires that all limitations of the claimed invention are described in a single reference, rather than a single example in the reference." *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545

F.3d 1359, 1369 n.5 (Fed. Cir. 2008) (quoting *Glaxo Grp. Ltd. v. Apotex, Inc.*, 376 F.3d 1339, 1348 (Fed. Cir. 2004)). A reference may anticipate even if it does not suggest the precise combination at issue, "if [the] reference teaches that the disclosed components or functionalities may be combined and one of skill in the art would be able to implement the combination." *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1344 (Fed. Cir. 2016).

AACI bases its anticipation defense on two prior patents – U.S. Patent No. 5,798,179 ("Kronzer '179 patent") and the Niemoller '187 patent[6] – which it argues disclose every limitation in Schwendimann's asserted claims. These patents were presented to the U.S. Patent and Trademark Officer examiner during prosecution. (Lindell Decl., Ex. I at 2, Ex. J at 2, Ex. K at 2, Ex. L at 2, Ex. M at 2.) Thus, AACI faces "the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job." *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1354 (Fed. Cir. 2001) (quoting *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1359 (Fed. Cir. 1984)). Here, AACI does not meet that burden because neither patent discloses a white layer along with a heated transfer, and thus, the patents do not contain all elements of Schwendimann's inventions.

[6] AACI notes in its memorandum that it relies on another patent, Patent No. 5,655,476 ("Oez '476 patent"), only for its obviousness argument and not for anticipation. (AACI's Mem. in Opp'n to Mot. for Partial Summ. J. at 11 n.3, Apr. 8, 2016, Docket No. 412.)

1. Kronzer '179 Patent

The Kronzer '179 patent "discloses an ink-jet melt transfer product comprising a backing substrate with a release coating, a melt-transfer film layer composed of EAA, and one or more ink-jet receiving film layer(s) having a thermoplastic binder and thermoplastic particles." (Lindell Decl., Ex. C ¶ 91.) Under the design, "[i]mages are printed in reverse and the sheets are placed image side down, ironed from the rear, and the backing substrate is removed." (*Id.*) Macosko opined that thermoplastic polymers and melt-transfer films "melted (liquefied) and mixed together upon ironing," and that the patent "specifically teaches that pigments can be used in any of the layers on the substrate." (*Id.*) Macosko stated in his initial report that the Kronzer '179 patent "discloses all of the limitations of" Schwendimann's claims. (*See, e.g., id.* ¶ 108.) However, when asked in his deposition where the Kronzer '179 patent disclosed the white layer limitation, Macosko repeatedly stated the change "would be obvious to one skilled in the art," and eventually replied in the affirmative when asked "[s]o your testimony is that information is not specifically in Kronzer, but it would be obvious to add that to Kronzer." (*Id.*, Ex. E at 55:1-56:11.)

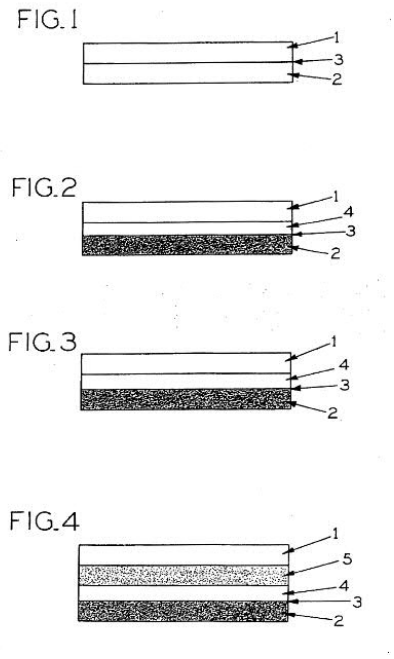
In response to Schwendimann's motion, AACI now argues that the Kronzer '179 patent inherently contained all elements of the Schwendimann patent. *See Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) ("[A] prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference."). AACI bases this argument on the Kronzer '179 patent's written description, which states:

"If desired, any of the foregoing film layers may contain other materials, such as processing aids, release agents, pigments, deglossing agents, antifoam agents, and the like. The use of these and similar materials is well known to those having ordinary skill in the art." (Lindell Decl., Ex. F at 6.) The Kronzer '179 patent also describes examples of substances that could compose each layer, and AACI points to table II, which discloses second layers, and includes several examples that have some amount of "ultrawhite 90." (*Id.* at 7.) AACI contends "ultrawhite 90" is a white pigment and could have provided a white background. AACI does not offer any expert opinion or testimony to support that conclusion.

The Court notes, however, that the second layer in the Kronzer '179 patent is a "release layer," which is not a part of the transferred image and could not provide a white background. (*See id.* at 3-5.) The first layer in the Kronzer '179 patent is "a base sheet or backing," that is "remov[ed] after transferring an image." (*Id.* at 4.) The "second, or release, layer overlays the first surface of the first layer," has "essentially no tack at transfer temperatures," which "means that the second layer does not stick to the third layer . . . to an extent sufficient to adversely affect the quality of the transferred image." (*Id.* at 5.) Thus, because the second layer – which, according to AACI, could have included white pigment – is removed after applying the image, it could not act as a white background, and the Kronzer '179 patent did not disclose the white layer limitation expressly or inherently. Accordingly, the Court will grant Schwendimann's motion with regard to AACI's anticipation defense based on the Kronzer '179 patent.

2. Niemoller '187 Patent

The Niemoller '187 patent discloses two types of image-transfer sheets that could apply images to different surfaces. One involves a heated transfer for a textile or other heat-resistant surface. In this embodiment there is no contact-adhesive layer, rather there is an image-receiving layer that is applied directly to the textile with heat, as well as a temporary backing that is removed after applying heat, as pictured in figure 1 below. (*Id.*, Ex, G at 15, 17-18.)



(*Id.* at 15.) In these figures from the Niemoller '187 patent, layer 1 is the "recording layer" which contains the image to be transferred, and layer 2 is the "temporary substrate material" which is peeled off at the interface (labelled 3 in the figure). (*Id.* at 18-19.)

The second type of image transfer contemplated by the Niemoller '187 patent, and shown in figures 2 through 4, also involves an image-receiving layer, but with an added "contact adhesive" layer – layer 4 in the figure – which detaches from the temporary

substrate material and remains with the image, as well as an optional "intermediate" layer – layer 5 in the figure. (*Id.* at 18-19, 22.) Layer 4 or layer 5 could be colored to provide a background for the image in the first layer. (*Id.*) In these embodiments, the backing/substrate layer is peeled off prior to application, and then the contact adhesive attaches to the surface with the image-receiving layer above it – thus, allowing the contact adhesive layer or another intermediate layer to provide a background for the main layer. (*Id.*)

It appears that only the transfer sheet depicted in the first figure was contemplated to be applied with heat because all of the other embodiments contemplate a contact adhesive, to be applied in a peel-and-stick manner. (*Id.* at 17-18.) It also appears that the heated transfer embodied in the first figure could not include a background color because the patent does not contemplate any additional layer between the first layer (which is what receives the image) and the textile or other receiving surface. This is evident because the examples involving heat suggest that the temporary substrate or backing layer is removed **after** application to the textile; the backing layer is always on the opposite end of the image-receiving layer; and thus, if any intermediate layer were to be a solid color, it would obscure the image. (*See, e.g.*, *id.* at 22-23 (stating that the recording layer would be placed onto the textile, and "converted into a film on a hot press . . . and at the same time transferred to the fabric and anchored thereto," after which "the temporary substrate material can be readily removed").)

Thus, while the Niemoller '187 patent included both a white background layer and a heated image transfer, those two elements never appeared together. Further, the two

elements could not appear together without changing the order of the layers in the first type of embodiment or changing the other embodiments to a heated transfer – neither of which was taught or suggested by the patent.

AACI points to the following patent language, which AACI argues suggests that the second group of embodiments could have taught a heated transfer, rather than just a contact adhesive transfer:

> All commercial contact adhesive coatings may be used as contact adhesive layers . . . . Permanent or detachable adhesives based on, for example, acrylates, natural rubbers, silicones, ethylene vinyl acetate copolymers or thermoplastic elastomers may be used. These adhesives may contain tackifiers, waxes, oils and other assistants and are applied from the melt (hotmelt), from solvent or from aqueous dispersion by known methods to the temporary substrate material.

(*Id.* at 18.) AACI contends that "ethylene vinyl acetate copolymers" and "thermoplastic elastomers" are typical hot-melt adhesives, and thus, the patent actually contemplated a heated transfer rather than just a non-heat contact transfer.

However, this portion of the patent describes a manner in which the contact-adhesive layer could be added to the product – through hot-melt – rather than a different manner to transfer the image to a surface. AACI acknowledged as much in its response to a rejection of its '093 patent during prosecution, in which it stated:

> As the Examiner points out, Niemoller mentions that the contact adhesive may be applied from melt (hotmelt), from solvent, or from aqueous dispersions at column 6, lines 58-62. It is submitted that "hotmelt", as used by Niemoller, refers to a conventional method for applying a room temperature contact adhesive. The purpose of heating the contact adhesive is to apply it, as a melt or liquid, to the substrate. But, the contact adhesive is used as a semi-solid substance to adhere the film to glass or other surface at room temperature. As discussed above, in Examples 5 and 6 of

> Niemoller, there is no contact adhesive or any hot-melt layer for ironing the material to the fabric.

(Second Lindell Decl., Ex. C at 14-15.) Thus, the reference to hot-melt and hot-melt adhesives in the Niemoller '187 patent does not change the interpretation discussed above, and the patent does not contemplate a white background layer occurring with a heated transfer.

While a single embodiment need not contain every element in the same combination, the patent must "teach[] that the disclosed components or functionalities may be combined and one of skill in the art would be able to implement the combination." *Blue Calypso*, 815 F.3d at 1344. The patent disclosed two different types of embodiments of the invention: (1) a sticker applied without heat that could include a white background layer; and (2) a product that could be used on textiles with heat, but without a white background layer. The Niemoller '187 patent did not teach a combination of those two aspects. Thus, the Niemoller '187 patent does not anticipate Schwendimann's patents, and the Court will grant summary judgment with regard to AACI's anticipation defense based on the Niemoller '187 patent.

D. Obviousness

Schwendimann also seeks summary judgment on AACI's invalidity defense based on obviousness. A patent fails for obviousness "if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains." 35 U.S.C. § 103.

"Obviousness is a determination of law based on underlying determinations of fact," including "the scope and content of the prior art, the level of ordinary skill in the art, the differences between the claimed invention and the prior art, and secondary considerations of nonobviouness." *Star Sci., Inc. v. R.J. Reynolds Tobacco Co.*, 655 F.3d 1364, 1374 (Fed. Cir. 2011). "[E]ven when all claim limitations are found in prior art references, the fact-finder must not only determine what the prior art teaches, but whether prior art teaches away from the claimed invention and whether there is a motivation to combine teachings from separate references." *Id.* at 1374-75.

AACI bases its obviousness defense on the two patents already discussed – the Kronzer '179 and Niemoller '187 patents – as well as U.S. Patent No. 5,655,476 ("Oez '476 patent"), based on which it argues a person of ordinary skill in the art would have been motivated to combine elements from each patent to make Schwendimann's claimed inventions. (Lindell Decl., Ex. C ¶¶ 97-104, 109-10 & Ex. 4.) The Oez '476 patent discloses a heat transfer that could include a white layer to provide a white background on darker T-shirts, but the white layer did not melt or mix with any other layer, and the image was printed directly onto the white layer, rather than on an additional ink-receiving layer. (*Id.*, Ex. H; *id.*, Ex. C ¶ 89.) Macosko opined that modifying the Oez '476 patent's ability to provide a white background to one involving an ink-jet layer and modifying the white layer polymer based on the teachings of the Kronzer '179 patent and the Niemoller '187 patent would have been obvious. (*Id.*, Ex. C ¶¶ 109-10.)

Schwendimann argues that she is entitled to summary judgment on AACI's obviousness defense because AACI has offered no evidence of a motivation to combine

the prior patents and the Oez '476 patent teaches away from Schwendimann's solution. But, in *KSR International Co. v. Teleflex Inc.*, the Supreme Court rejected a strict application of the "teaching, suggestion, or motivation" or "TSM" test for obviousness. 550 U.S. 398, 407-16 (2007). Instead, "[t]he obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents." *Id.* at 419.

AACI has not provided expert testimony directly stating that a motivation to combine existed, but such evidence is not required. Rather, "the legal determination of obviousness may include recourse to logic, judgment, and common sense, in lieu of expert testimony," at least where "the technology [is] 'easily understandable.'" *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1239-40 (Fed. Cir. 2010) (quoting *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329-30 (Fed. Cir. 2009)). At this stage, Macosko's opinions regarding the prior art are sufficient to allow an inference that a motivation to combine existed. In particular, Macosko noted that the Kronzer '179, Niemoller '187, and Oez '476 patents are "directly analogous" to the Schwendimann patents, and pointed to the particular elements that one would need to combine from each to arrive at Schwendimann's patents. (*See* Lindell Decl., Ex. C ¶¶ 94, 109-10, 122-25, 133-35, 142-46, 152-54.) Macosko also noted in his deposition that he considered these particular prior patents in his analysis "because they are transfer films, especially to transfer images onto something else" and fall within "the same family of types of products," and therefore, "they would be trying to solve the same problem that the Schwendimann

patents might be trying to solve, or closely related problems." (Second Decl. of Kurt J. Niederluecke ("Second Niederluecke Decl."), Ex. GG at 287:21-288:12, Apr. 8, 2016, Docket No. 414.)

Schwendimann also argues that AACI has provided no evidence suggesting that the combinations and modifications Macosko proposes would have had a reasonable expectation of success because Macosko did not explain exactly how to modify the particular patents. Macosko explained the basis for his opinion, however, stating that a person of ordinary skill in the art would be able to modify the white layer of the Oez '476 patent in light of the Kronzer '179 and Niemoller '187 patents, both of which "describe polymers for use in a white layer which would melt in the operating range of melt transfer irons or presses." (Lindell Decl., Ex. C ¶¶ 109-10.)

In sum, the prior art presented in response to this motion contains all of the elements of the Schwendimann patent, Macosko's expert report opines that one with reasonable skill in the art would be able to combine those elements, and the Court rejects Schwendimann's argument that motivation to combine must come from expert testimony. The Court, therefore, finds that AACI has provided sufficient evidence to establish questions of material fact remain over whether Schwendimann's patents were obvious in light of the prior art. Accordingly, the Court will deny Schwendimann's motion with regard to AACI's obviousness defense.

E. Schwendimann's Lost Profits

Both parties seek summary judgment regarding Schwendimann's ability to seek lost profits damages for profits her companies, NuCoat and Cooler Concepts, would have made without AACI's sales of allegedly infringing products. (Am. Compl. ¶¶ 23-24, 35-36, 55.) NuCoat and Cooler Concepts are both "S" corporations in which Schwendimann owns 100 percent of the stock. (*See* Lindell Decl., Exs. N-O, Q-X.)

The patent damages provision states that a patent infringement claimant is entitled to "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer." 35 U.S.C. § 284. "Despite the broad damages language of § 284, patentees tend to try to fit their damages cases into the 'lost profits' framework, or else fall back on the statutory grant of a reasonable royalty." *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1366 (Fed. Cir. 2008), *mandate recalled and amended in* 557 F.3d 1377 (Fed. Cir. 2009). In order to collect lost profits, patentees are required to show "a reasonable probability that 'but for' the infringing activity, the patentee would have made the infringer's sales." *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 805 F.3d 1368, 1379 (Fed. Cir. 2015) (quoting *Ericsson Inc. v. Harris Corp.*, 352 F.3d 1369, 1377 (Fed. Cir. 2003)). Thus, "the patentee needs to have been selling some item, the profits of which have been lost due to infringing sales, in order to claim damages consisting of lost profits." *Poly-Am., L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1311 (Fed. Cir. 2004). Typically, "a patentee may not claim, as its own damages, the lost profits of a related company." *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 778 F.3d 1365, 1375 (Fed. Cir. 2015), *vacated on*

other grounds sub nom. Medtronic Sofamor Danek USA, Inc. v. NuVasive, Inc., 136 S. Ct. 893 (2016).

Schwendimann argues, however, that she can recover the lost profits of NuCoat and Cooler Concepts because their profits "flowed inexorably" to her. *See Fujitsu Ltd. v. Tellabs, Inc.*, No. 09-4530, 2013 WL 2285794, at *3 (N.D. Ill. May 23, 2013). After acknowledging the "inexorable flow" test in its early briefing, AACI now cites a recent report and recommendation of a magistrate judge in the Eastern District of Texas to argue that such an exception is not available. In *Mars, Inc. v. TruRX LLC*, the magistrate judge suggested that the "inexorable flow" theory was never actually adopted by the Federal Circuit, and declined to apply it. No. 13-526, 2016 WL 4034803, at *6-10 (E.D. Tex. Mar. 14, 2016), *adopted by* 2016 WL 4061981 (E.D. Tex. Apr. 29, 2016).

While none of the Federal Circuit opinions Schwendimann relies upon concluded a plaintiff was entitled to lost profit damages based on the "inexorable flow" theory, none of them foreclosed the exception. In fact, by electing not to decide the validity of the "inexorable flow" theory, the Federal Circuit suggested the exception exists. In *Coin Acceptors*, for example, the Federal Circuit rejected the plaintiff's argument that the subsidiary's lost profits were "**inherently**" the parent company's losses, not by discarding the "inexorable flow" theory, but by concluding the facts did not support the statement. 527 F.3d at 1367. In fact, the subsidiary and parent "had a traditional royalty-bearing license agreement," and the subsidiary paid the parent a royalty regardless of whether the subsidiary made a profit. *Id.* The court then stated, "[b]ecause we conclude that [the subsidiary's] profits did not . . . flow inexorably to [the parent], we, like the

Poly-America court, need not decide whether a parent company can recover on a lost profits theory when profits of a subsidiary actually **do** flow inexorably up to the parent." *Id.*; *see also Poly-Am.*, 383 F.3d at 1311. Several district courts interpreted the caselaw similarly. *See, e.g., Fujitsu*, 2013 WL 2285794, at *3 ("The issue governing whether a parent company patent owner may be compensated under the damages theory of lost profits for its wholly-owned subsidiary's lost sales turns on whether the subsidiary's profits 'flowed inexorably' to the patent-owner parent."); *Callaway Golf Co. v. Acushnet Co.*, 691 F. Supp. 2d 566, 575 (D. Del. Mar. 3, 2010) ("I conclude that where the profits of a wholly-owned subsidiary flow up to the parent, inclusion of such profits is appropriate."). Thus, the Court finds that Schwendimann may pursue lost profit damages, if Schwendimann establishes that NuCoat and Cooler Concepts' profits flowed inexorably to her.

Schwendimann argues that because NuCoat and Cooler Concepts are "S" corporations for tax purposes, the companies' profits flow to the shareholders and the shareholders are taxed on the profits regardless of distributions. *See Gitlitz v. Comm'r*, 531 U.S. 206, 209 (2001) ("The corporation's profits pass through directly to its shareholders on a pro rata basis and are reported on the shareholders' individual tax returns."). Thus, Schwendimann argues that she automatically receives NuCoat's and Cooler Concepts' profits as a matter of law each year, regardless of distributions, because Schwendimann is taxed on the full amount and any distribution is tax-free. Schwendimann relies on *Callaway Golf*, a 2010 District of Delaware decision where the court made the conclusory finding "that where the profits of a wholly-owned subsidiary

flow up to the parent, inclusion of such profits is appropriate." 691 F. Supp. 2d at 575 (citing *Coin Acceptors*, 527 F.3d at 1367). Schwendimann also cites two cases that awarded lost profits for non-patentholding companies, but without much discussion of the issue. *See Wechsler v. Macke Int'l Trade, Inc.*, 399 F. Supp. 2d 1088, 1094-95 (C.D. Cal. 2005) (finding patentholder could recover lost profits for his company), *aff'd in part, rev'd in part*, 486 F.3d 1286 (Fed. Cir. 2007) (holding there was insufficient evidence of but-for causation for damages); *Kalman v. Berlyn Corp.*, No. 82-0346, 1988 WL 156126, at *3 (D. Mass. July 25, 1988) (awarding patentholder a share of lost profits based on his share in the company), *aff'd in part, rev'd in part*, 914 F.2d 1473 (Fed. Cir. 1990).

None of the cited cases found, however, that an "S" corporation's profits "flowed inexorably" to a sole shareholder as a matter of law for the purposes of patent law lost profits. In fact, one court reached the opposite conclusion. In *Kowalski v. Mommy Gina Tuna Resources*, the District of Hawaii found a patent-holder was not entitled to lost profit damages for his company even though he was "the sole owner, president, and CEO . . . [and] had complete control of any profits reaped by the company, and claim[ed] that he would have funneled those profits to himself."[7] 574 F. Supp. 2d 1160, 1163 (D. Haw. 2008). The patent-holder claimed that because "[h]e had complete discretion to dispose of the profits of the company as he saw fit . . . they flowed inexorably to him" *Id.* The court noted that the patent-holder established the company "as an entity separate

[7] While *Kowalski* did not precisely describe the corporation involved, the facts indicate that it was an "S" corporation. *See* 574 F. Supp. 2d at 1163 (citing an exhibit "discussing hypothetical situations assuming that under certain circumstances, an 'S' corporation might not distribute its profits").

from himself as patent holder 'to suit [his] own goals and purposes'; therefore, he 'must take the benefits with the burdens.'" *Id.* (alteration in original). "Mere ownership and control [was] insufficient to prove that profits flowed inexorably from a subsidiary to a parent," and "[w]hile it might have been standard or 'usual' for the owner of a sole proprietorship to take all of the profits of the business, it [was] not necessarily the case." *Id.* Thus, the court found "[i]n the absence of any evidence of inexorability, either contractual, structural or historical . . . [the patent holder had] failed to raise a genuine issue of material fact as to whether profits flowed inexorably from [his company] to him." *Id.*

Here, Schwendimann chose not to provide "contractual, structural or historical" evidence of inexorability, but rather rested on NuCoat's and Cooler Concept's tax statuses. The Court finds that relying on that status alone is insufficient to establish inexorable flow, and that Schwendimann must present "contractual, structural, or historical" evidence to determine if profits in fact flowed inexorably to Schwendimann. Thus, the Court will deny both parties' motions for summary judgment with regard to lost profits because questions of material fact remain over whether NuCoat's and Cooler Concepts' profits flowed inexorably to Schwendimann.

ORDER

Based on the foregoing, and all of the files, records, and proceedings herein, **IT IS HEREBY ORDERED** that:

1. Schwendimann's Motion for Partial Summary Judgment [Docket No. 381] is **GRANTED in part and DENIED in part** as follows:

a. The motion is **GRANTED** with regard to AACI's anticipation defense based on the Kronzer '179 and Niemoller '187 patents.

b. The motion is **DENIED** in all other respects.

2. AACI's Motion for Partial Summary Judgment [Docket No. 384] is **GRANTED in part and DENIED in part** as follows:

a. The motion is **GRANTED** with regard to Schwendimann's infringement of AACI's '093 patent.

b. The motion is **DENIED** in all other respects.

DATED: December 12, 2016
at Minneapolis, Minnesota.

s/ John R. Tunheim
JOHN R. TUNHEIM
Chief Judge
United States District Court